



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/614,496

07/07/2003

Eric Stephane Fourcault

80350-1100

6363

24504

7590

07/08/2008

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP  
600 GALLERIA PARKWAY, S.E.  
STE 1500  
ATLANTA, GA 30339-5994

EXAMINER

PHILOGENE, PEDRO

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

07/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/614,496	<b>Applicant(s)</b> FOURCAULT ET AL.	
	<b>Examiner</b> Pedro Philogene	<b>Art Unit</b> 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1.3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/08 has been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqui (6,306,140) in view of Sparkes (4,697,969).

With respect to claims 1, 13, 15, Siddiqui discloses an osteosynthesis and compression screw for coaptation of small bone fragments, the screw being formed by a single longitudinal body having a longitudinal axis, and comprising a proximal portion formed by a screw head (5) provided with an outside thread, the proximal portion being of diameter greater than the diameter of the remainder of the screw, and intermediate portion (25) having no thread; and a distal portion (7) provided with an outside threads; as best seen in FIG.1,, the terminal zero of the distal portion is provided with

preparation means (29) for preparing a housing in the bone fragment for receiving the intermediate and distal portions of the screw.

It is noted that Siddiqui did not teach of each of the screw head and the distal portion includes at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in such a manner to form tapping means; as claimed by applicant. However, in the screw field, Sparkes evidences the use of a screw with at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in such a manner to form tapping means to have exceptionally easy starting and insertion ability and to facilitate counter-sinking, and also reducing the danger of splitting the material being used.

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the device of Siddiqui, as taught by Sparkes to have exceptionally easy starting and insertion ability and to facilitate counter-sinking, and also reducing the danger of splitting the small bone fragments.

With respect to claims 3-12, 14,16-20, the above combination of references teaches all the limitations, such as, the angle being thirty degrees, the groove being constant, the variation of each groove, the increases of the grooves towards the terminal zone of the screw, the tooth extending substantially axially, the central longitudinal bore, as set forth in column 1, lines 60-68, column 2, lines 1-68; and as best seen in FIGS.1-8 of Sparkles; also as set forth in column 3, lines 40-67, column 4, lines 1-67, columns 5,6, 7, lines 1-67; and as best seen in FIGS.1-12 of Siddiqui.

Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqui (6,306,140) in view of Jones (6,604,945).

With respect to claims 1, 13, 15, Siddiqui discloses an osteosynthesis and compression screw for coaptation of small bone fragments, the screw being formed by a single longitudinal body having a longitudinal axis, and comprising a proximal portion formed by a screw head (5) provided with an outside thread, the proximal portion being of diameter greater than the diameter of the remainder of the screw, and intermediate portion (25) having no thread; and a distal portion (7) provided with an outside threads; as best seen in FIG.1,, the terminal zero of the distal portion is provided with preparation means (29) for preparing a housing in the bone fragment for receiving the intermediate and distal portions of the screw.

It is noted that Siddiqui did not teach of each of the screw head and the distal portion includes at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in such a manner to form tapping means; as claimed by applicant. However, in the screw field, Jones provides the evidence of the use of a screw with at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in such a manner to form tapping means to permit the implant to cut its own threads in bone tissue and also to provide a place for packing bone-fragment crumbs.

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the device of Siddiqui, as taught by Jones to

permit the implant to cut its own threads in bone tissue and also to provide a place for packing bone-fragment crumbs.

With respect to claims 3-12, 14,16-20, the above combination of references teaches all the limitations, such as, the angle being thirty degrees, the groove being constant, the variation of each groove, the increases of the grooves towards the terminal zone of the screw, the tooth extending substantially axially, the central longitudinal bore, as set forth in column 4, lines 7-63, and as best seen in FIGS.1-6 of Jones; also as set forth in column 3, lines 40-67, column 4, lines 1-67, columns 5,6, 7, lines 1-67; and as best seen in FIGS.1-12 of Siddiqui.

### ***Response to Arguments***

Applicant's arguments filed 4/30/08 have been fully considered but they are not persuasive. Applicant stated that "But Sparkes teaches a screw with helical groove to have easy starting ability and to facilitate counter sinking and also reducing the danger of splitting the material being used to assure reliable operation while not compressing the joined members." However, in column 2, lines 57-62, Sparkes discloses that "the wood cuttings in the long spiral tend to be compressed and create an exceptional strong fastening quality of the screw in the wood. The spiral flute through the threads act as a tap, cutting clean threads in the wood rather than compressing and splitting or weakening the material". It is noted that Sparkes is only interested on the stress applied on the material. Sparkes only wants to cut the material in a clean manner. Sparkes does not want to compress or split or weaken the material around the area of the cut. In addition in column 2, lines 57-62, Sparkes clearly teaches that the wood cuttings in the

Art Unit: 3733

long spiral tend to be compressed and create an exceptionally strong fastening quality of the screw in the wood". Therefore, Sparkes teaches of compressing the joined members. Also, the reference to Siddiqui teaches of compressing the joined members.

Since Applicant argues that Sparkes is non-analogous art, a second rejection is made in this case over the reference to Jones.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4,871,313

10-1989

Maillefer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (571) 272-4716. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272 - 4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pedro Philogene/  
Primary Examiner, Art Unit 3733  
July 2, 2008